## AMENDMENTS TO THE CLAIMS

- 1. (canceled)
- 2. (currently amended) The composition of Claim 1812, wherein the poly(arylene ether) comprises a plurality of structural units of the formula

$$Q^2$$
  $Q^1$ 

wherein for each structural unit, each  $Q^1$  is independently halogen, primary or secondary  $C_1$ - $C_7$  alkyl, phenyl,  $C_1$ - $C_7$  haloalkyl,  $C_1$ - $C_7$  aminoalkyl,  $C_1$ - $C_7$  hydrocarbonoxy, or  $C_2$ - $C_7$  halohydrocarbonoxy wherein at least two carbon atoms separate the halogen and oxygen atoms; and each  $Q^2$  is independently hydrogen, halogen, primary or secondary  $C_1$ - $C_7$  alkyl, phenyl,  $C_1$ - $C_7$  haloalkyl,  $C_1$ - $C_7$  aminoalkyl,  $C_1$ - $C_7$  hydrocarbonoxy, or  $C_2$ - $C_7$  halohydrocarbonoxy wherein at least two carbon atoms separate the halogen and oxygen atoms.

- 3. (original) The composition of Claim 2 wherein each  $Q^1$  is independently  $C_1$ - $C_7$  alkyl, and each  $Q^2$  is hydrogen.
- 4. (original) The composition of Claim 3 wherein the poly(arylene ether) is a homopolymer comprising 2,6-dimethylphenylene ether units, or a random copolymer comprising 2,6-dimethylphenylene ether units in combination with 2,3,6-trimethyl-1,4-phenylene ether units.
- 5. (currently amended) The composition of Claim 4812, wherein the poly(arylene ether) comprises a directly isolated poly(arylene ether).

- 6. (currently amended) The composition of Claim 1812, wherein the poly(arylene ether) comprises a redistributed poly(arylene ether).
- 7. (currently amended) The composition of Claim 1812, wherein the poly(arylene ether) has an intrinsic viscosity of about 0.20 dL/g to about 0.40 dL/g as measured at 25°C in chloroform.
- 8. (currently amended) The composition of Claim 1812, comprising about 10 to about 40 parts by weight of the poly(arylene ether) per 100 parts by weight total of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent.
- 9. (currently amended) The composition of Claim 1812, wherein the thermosetting resin comprises an epoxy resin.
- 10. (currently amended) The composition of Claim 1812, wherein the thermosetting resin comprises a reaction product of 2,2-bis(4-hydroxyphenyl)propane and epichlorohydrin.
- 11. (currently amended) The composition of Claim 1812, comprising about 50 to about 85 parts by weight of the thermosetting resin per 100 parts by weight total of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent.

12. (previously presented) A curable composition, comprising:

about 5 to about 50 parts by weight of a poly(arylene ether);

about 25 to 90 parts by weight of a thermosetting resin selected from the group consisting of epoxy resins, polyester resins, polyimide resins, bis-maleimide resins, cyanate ester resins, vinyl resins, benzoxazine resins, benzoxyclobutene resins, and mixtures comprising at least one of the foregoing thermosetting resins;

about 0.5 to about 15 parts by weight of a compatibilizing agent comprising a polyvinyl acetal; and

about 3 to about 150 parts by weight per 100 parts of weight of the thermosetting resin of an amine cure agent selected from the group consisting of amidoamines, polyamides, cycloaliphatic amines, modified cycloaliphatic amines, aromatic amines, modified aromatic amines, BF<sub>3</sub>-amine adducts, imidazoles, guanidines, arylene polyamines, and mixtures comprising at least one of the foregoing amine cure agents;

wherein the parts by weight of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent sum to 100.

13. (previously presented) A curable composition, comprising:

about 5 to about 50 parts by weight of a poly(arylene ether);

about 25 to 90 parts by weight of a thermosetting resin selected from the group consisting of epoxy resins, polyester resins, polyimide resins, bis-maleimide resins, cyanate ester resins, vinyl resins, benzoxazine resins, benzoxyclobutene resins, and mixtures comprising at least one of the foregoing thermosetting resins;

about 0.5 to about 15 parts by weight of a compatibilizing agent comprising a polyvinyl butyral; and

about 3 to about 150 parts by weight per 100 parts of weight of the thermosetting resin of an amine cure agent selected from the group consisting of amidoamines, polyamides, cycloaliphatic amines, modified cycloaliphatic amines, aromatic amines, modified aromatic amines, BF<sub>3</sub>-amine adducts, imidazoles, guanidines, arylene polyamines, and mixtures comprising at least one of the foregoing amine cure agents;

wherein the parts by weight of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent sum to 100.

- 14. (currently amended) The composition of Claim +\$12, comprising about 2 to about 10 parts by weight of the compatibilizing agent per 100 parts by weight total of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent.
- 15. (currently amended) The composition of Claim 1812, wherein the cure agent comprises an arylene polyamine.
- 16. (currently amended) The composition of Claim 1812, wherein the cure agent comprises 4,4'-methylenebis(2,6-diethylaniline).
- 17. (currently amended) The composition of Claim 1812, comprising about 20 to about 100 parts by weight of the cure agent per 100 parts by weight of the thermosetting resin.

- 18. (canceled)
- 19. (canceled)
- 20. (currently amended) The composition of Claim 1812, further comprising an additive selected from the group consisting of fillers, antioxidants, UV absorbers, thermal stabilizers, light stabilizers, pigments, dyes, colorants, anti-static agents, flame retardants, impact modifiers, mold release agents, and mixtures comprising at least one of the foregoing additives.
- 21. (currently amended) The eurable resin composition of Claim 1812, wherein the resin composition is substantially free of solvent.
  - (previously presented) A curable composition, comprising:

about 10 to about 40 parts by weight of a poly(arylene ether) having an intrinsic viscosity of about 0.20 dL/g to about 0.40 dL/g as measured at 25°C in chloroform;

about 50 to about 85 parts by weight of an epoxy resin;

about 2 to about 10 parts by weight of a polyvinyl butyral; and

about 20 to about 100 parts by weight per 100 parts of weight of the epoxy resin of an aromatic amine cure agent;

wherein the parts by weight of the poly(arylene ether), the epoxy resin, and the polyvinyl butyral sum to 100.

23. (currently amended) A method of forming a curable resin composition, comprising:

forming an intimate blend comprising about 5 to about 50 parts by weight of a poly(arylene other); about 25 to 90 parts by weight of a thermosetting resin selected from the group consisting of epoxy resins, polyester resins, polyimide resins, bis-maleimide resins, cyanate ester resins, vinyl resins, benzoxazine resins, benzocyclobutene resins, and mixtures comprising at least one of the foregoing thermosetting resins; about 0.5 to about 15 parts by weight of a compatibilizing agent selected from the group consisting of comprising a polyvinyl acetal-resins, styrene butadiene styrene blook copolymers, styrene chylene styrene block cepelymers, styrene ethylene butylene styrene block copolymers, functionalized butadiene acrylonitrilo copolymers, styrene butadiene core shell-rubbers, styrene-butadiene-styrene core-shell rubbers, and mixtures comprising at least one of the foregoing compatibilizing agents; about 3 to about 150 parts by weight per 100 parts by weight thermosetting resin of an amine cure agent selected from the group consisting of amidoamines, polyamides, cycloaliphatic amines, modified cycloaliphatic amines, aromatic amines, modified aromatic amines, BF3-amine adducts, imidazoles, guanidines, arylene polyamines, and mixtures comprising at least one of the foregoing amine cure agents; and about 0.1 to about 20 parts by weight per 100 parts by weight poly(arylene ether) of a plasticizer effective for poly(arylene ether) resins; wherein the parts by weight of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent sum to 100.

- 24. (original) The method of Claim 23, wherein at least about 50 weight percent of the total poly(arylene ether) is provided in the form of a solid concentrate comprising about 30 weight percent to about 90 weight percent poly(arylene ether), and about 10 weight percent to about 70 weight percent thermosetting resin, wherein the weight percents are based on the total weight of the solid concentrate.
- 25. (original) The method of Claim 24, wherein forming an intimate blend comprises heating the poly(arylene ether), the thermosetting resin, and the compatibilizing agent to a temperature up to about 100°C.

60LT1103-1 GP3-0009

26. (currently amended) A method of forming a curable resin composition, comprising:

forming a first intimate blend comprising about 5 to about 50 parts by weight of a poly(arylene ether); about 25 to 90 parts by weight of a thermosetting resin selected from the group consisting of epoxy resins, polyester resins, polyimide resins, bis-maleimide resins, cyanate ester resins, vinyl resins, benzoxazine resins, benzocyclobutene resins, and mixtures comprising at least one of the foregoing thermosetting resins; and about 0.5 to about 15 parts by weight of a compatibilizing agent selected from the group consisting of comprising a polyvinyl acetal resins, styrene butadiene styrene block copolymers, styrene ethylene styrene block copolymers, styrene ethylene styrene block copolymers, styrene butadiene styrene block copolymers, functionalized butadiene acrylenitrile copolymers, styrene butadiene core shell rubbers, styrene butadiene styrene core shell rubbers, and mixtures comprising at least one of the feregoing compatibilizing agents; and about 0.1 to about 20 parts by weight per 100 parts by weight poly(arylene ether) of a plasticizer effective for poly(arylene ether) resins; and

forming a second intimate blend comprising the first intimate blend and about 3 to about 150 parts by weight per 100 parts by weight thermosetting resin of an amine cure agent selected from the group consisting of amidoamines, polyamides, cycloaliphatic amines, modified cycloaliphatic amines, aromatic amines, modified aromatic amines, BF<sub>3</sub>-amine adducts, imidazoles, guanidines, arylene polyamines, and mixtures comprising at least one of the foregoing amine cure agents;

wherein the parts by weight of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent sum to 100.

27. (original) The method of Claim 26, wherein forming the first intimate blend comprises heating the poly(arylene ether), the thermosetting resin, and the compatibilizing agent to a temperature of at least about 150°C to form a homogeneous solution.

60LT1103-1 GP3-0009

28. (original) The method of Claim 27, wherein forming the first intimate blend further comprises cooling the homogeneous solution to a temperature up to about 100°C to form a slurry of solid particles, wherein the solid particles have an average particle size up to about 1 millimeter.

29-32. (canceled)

- 33. (original) A curable resin composition prepared according to the method of Claim 23.
- 34. (original) A curable resin composition prepared according to the method of Claim 24.
- 35. (original) A curable resin composition prepared according to the method of Claim 25.
  - 36. (canceled)
  - 37. (canceled)

60LT1103-1 GP3-0009

38. (currently amended) A cured composition comprising the reaction product of:

about 5 to about 50 parts by weight of a poly(arylene ether);

about 25 to 90 parts by weight of a thermosetting resin selected from the group consisting of epoxy resins, polyester resins, polyimide resins, bis-maleimide resins, cyanate ester resins, vinyl resins, benzoxazine resins, benzoxyclobutene resins, and mixtures comprising at least one of the foregoing thermosetting resins;

about 0.5 to about 15 parts by weight of a compatibilizing agent-selected from the group consisting of comprising a polyvinyl acetal-resins, styrene-butadiene-styrene block copolymers, styrene ethylene-styrene block copolymers, styrene-butylene-butylene-styrene block copolymers, functionalized butadiene aerylonitrile copolymers, styrene-butadiene core shell rubbers, styrene-butadiene-styrene core shell rubbers, and mixtures comprising at least one of the foregoing compatibilizing agents;

about 3 to about 150 parts by weight per 100 parts of weight of the thermosetting resin of an amine cure agent selected from the group consisting of amidoamines, polyamides, cycloaliphatic amines, modified cycloaliphatic amines, aromatic amines, modified aromatic amines, BF<sub>3</sub>-amine adducts, imidazoles, guanidines, arylene polyamines, and mixtures comprising at least one of the foregoing amine cure agents; and

about 0.1 to about 20 parts by weight per 100 parts by weight poly(arylene ether) of a plasticizer effective for poly(arylene ether) resins;

wherein the parts by weight of the poly(arylene ether), the thermosetting resin, and the compatibilizing agent sum to 100.

39. (original) An article comprising the cured resin composition of Claim 38.

## This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:
☐ BLACK BORDERS
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
☐ FADED TEXT OR DRAWING
☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
☐ SKEWED/SLANTED IMAGES
☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
☐ GRAY SCALE DOCUMENTS
LINES OR MARKS ON ORIGINAL DOCUMENT
☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
□ OTHER.

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.